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Water-Data Report 2008

08162000 Colorado River at Wharton, TX

Lower Colorado Basin
Lower Colorado Subbasin

LOCATION.--Lat 29°18′32″, long 96°06′13″ referenced to North American Datum of 1927, Wharton County, TX, Hydrologic Unit 12090302, near left bank at downstream side of downstream bridge on U.S. Highway 59 in Wharton, 1,100 ft downstream from Texas and New Orleans Railroad Co. bridge, 12 mi upstream from Jones Creek, and at mile 66.6.

DRAINAGE AREA.--42,003 mi^2 of which 11,403 mi^2 probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1916 to Aug. 1918 (intermittent periods), Mar. 1919 to Sept. 1925 and July and Aug. 1938 (flood discharge measurements only), Oct. 1938 to current year. June to Nov. 1901, May to Sept. 1902, daily records published in U.S. Department of Agriculture, Office of Experiment Stations, Bulletin Nos. 119 and 133. Gage-height records collected in this vicinity since 1935 are contained in reports of the National Weather Service. Water-quality records: Specific conductance (daily records): Apr. 1944 to Sept. 1992. Water temperature (daily records): Oct. 1945 to Sept 1948, March 1950 to Sept. 1992. Chemical data: Apr. 1944 to Sept. 1995. Biochemical data: Jan. 1968 to Sept. 1995. Radiochemical data: Dec. 1973 to Sept. 1995. Pesticide data: Oct. 1967 to June 1982. Sediment data: Oct. 1974 to Sept. 1995.

REVISED RECORDS.--WSP 878: 1938(M). WDR TX-81-3: Drainage area. WDR TX-88-3: 1985.

GAGE.--Water-stage recorder. Datum of gage is 52.42 ft above NGVD of 1929. Prior to Oct. 1, 1938, various types of recording and nonrecording gages 800 ft upstream at different datum. Oct. 1, 1938, to June 1, 1956, nonrecording gage 100 ft upstream at datum 13.00 ft higher. June 1, 1966, to Sept. 30, 1975, water-stage recorder at present site at datum 13.00 ft higher. Oct. 1, 1975, to Mar. 1, 1983, water-stage recorder at present site at datum 10.00 ft higher. Satellite telemeter at station.

REMARKS.--Records good. Since installation of gage in Oct. 1938, at least 10% of contributing drainage area has been regulated. There are many diversions above station for irrigation, municipal supply, cooling water for thermal-electric power plant, and oil field operations.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1869, 51.9 ft Dec. 8, 1913, present datum, from information by local residents; below Wharton floodwater combined with that of the Brazos River. Flood of about July 12, 1869, reached about same height. Flood of June 20, 1935, reached a stage of 51.2 ft, present datum, furnished by National Weather Service (discharge, 159,000 ft^3/s), from rating curve defined by current-meter measurements below 145,000 ft^3/s. Flood of July 30, 1938, reached a stage of 50.4 ft, present datum, observed by U.S. Geological Survey personnel (discharge, 145,000 ft^3/s).

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,300	1,030	1,420	726	804	865	758	2,340	697	981	609	410
2	1,380	1,020	1,280	699	787	834	829	1,680	714	964	551	443
3	1,250	949	1,170	701	740	815	966	1,310	788	919	524	400
4	1,180	933	1,070	677	659	852	926	1,070	805	1,050	539	366
5	1,120	907	997	697	672	842	903	880	794	1,110	643	249
6	1,070	875	944	702	745	1,130	879	777	733	1,160	743	203
7	1,010	852	913	736	744	1,620	910	756	547	1,210	692	159
8	910	834	889	793	754	1,180	1,180	726	707	1,230	695	190
9	799	817	862	808	762	1,390	1,220	586	823	1,160	671	333
10	742	813	878	783	739	1,340	1,150	613	876	1,150	617	369
11	644	811	870	769	805	1,210	1,150	586	873	1,230	497	665
12	543	808	846	758	779	2,280	1,200	464	864	1,310	498	1,090
13	520	801	856	763	750	3,520	1,170	460	903	1,200	484	1,340
14	597	795	845	781	760	2,790	1,140	517	913	1,100	428	1,460
15	629	766	935	781	723	2,010	1,130	640	944	868	409	1,330
16	1,600	772	899	912	823	1,550	898	854	934	586	408	973
17	2,020	740	2,080	865	1,200	1,330	664	1,080	943	392	524	696
18	1,620	1,840	1,950	812	4,180	1,190	660	1,400	928	363	682	744
19	1,380	18,500	1,410	1,400	3,770	1,090	1,010	1,360	892	389	698	919
20	1,250	13,200	1,200	1,410	2,280	1,050	1,230	993	874	380	981	931
21	1,180	4,820	1,070	1,300	1,860	1,490	1,290	704	897	374	1,100	801
22	1,180	2,630	960	1,230	1,500	1,560	1,630	545	951	466	1,030	672
23	1,140	2,060	907	1,380	1,260	1,520	1,490	480	917	625	1,060	621
24	1,100	1,630	856	1,330	1,100	1,240	1,320	457	916	744	1,110	526
25	1,070	3,150	823	1,230	1,040	1,040	1,210	463	972	877	1,010	512
26	1,240	6,290	802	1,210	1,020	1,010	1,330	625	1,020	1,060	852	484
27	1,270	4,290	772	1,170	978	1,000	1,360	760	1,060	1,110	628	448
28	1,120	2,500	789	1,120	933	933	2,130	787	1,070	1,080	503	470
29	1,050	1,940	753	1,040	888	786	2,110	783	1,110	988	409	519
30	1,010	1,620	749	917	---	747	2,020	778	1,020	829	391	553
31	1,040	---	726	852	---	750	---	770	---	680	372	---
Total	33,964	78,993	31,521	29,352	34,055	40,964	35,863	26,244	26,485	27,585	20,358	18,876
Mean	1,096	2,633	1,017	947	1,174	1,321	1,195	847	883	890	657	629
Max	2,020	18,500	2,080	1,410	4,180	3,520	2,130	2,340	1,110	1,310	1,110	1,460
Min	520	740	726	677	659	747	660	457	547	363	372	159
Ac-ft	67,370	156,700	62,520	58,220	67,550	81,250	71,130	52,050	52,530	54,710	40,380	37,440

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2,219	2,656	2,354	2,489	2,936	2,826	2,969	3,868	4,542	2,914	1,395	1,847
Max	14,590	16,940	15,060	21,810	35,520	21,550	13,730	27,300	30,910	24,420	5,928	9,394
(WY)	(1999)	(2005)	(1992)	(1992)	(1992)	(1992)	(1977)	(1957)	(1987)	(2007)	(2007)	(1961)
Min	296	220	253	224	268	328	566	825	838	706	406	436
(WY)	(1957)	(1957)	(1990)	(1964)	(1967)	(1952)	(1951)	(1962)	(1948)	(1967)	(1964)	(1954)

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SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1939 - 2008	
Annual total	1,898,988		404,260			
Annual mean	5,203		1,105		2,747	
Highest annual mean					11,120	1992
Lowest annual mean					615	1964
Highest daily mean	37,400	Jul 9	18,500	Nov 19	90,600	Jul 3, 1940
Lowest daily mean	337	May 18	159	Sep 7	42	Aug 22, 1964
Annual seven-day minimum	503	May 13	267	Sep 4	110	Dec 11, 1956
Maximum peak flow			20,500	Nov 19	100,000	Jul 3, 1940
Maximum peak stage			26.13	Nov 19	48.99	Jul 3, 1940
Annual runoff (ac-ft)	3,767,000		801,800		1,990,000	
10 percent exceeds	15,600		1,510		5,510	
50 percent exceeds	2,070		901		1,300	
90 percent exceeds	751		518		474